

Enhancing Wildlife Habitat

Cornell University Cooperative Extension and
New York State Department of Environmental Conservation
www.ForestConnect.info



Catching a glimpse of a scarlet tanager darting through dense summer foliage – or a red eft scurrying along the edge of a marsh or pond...waking up to the song of a whippoorwill or northern cardinal...discovering deer tracks in freshly fallen snow...

At some point in time, nearly everyone finds enjoyment in wildlife. As a home or landowner, you have the opportunity to benefit from the aesthetic, recreational and economic rewards that come with safeguarding and managing your land in ways that allow for and respect the needs of wildlife.



Red Eft: More than two months after hatching, eastern newts transform from aquatic, gilled larvae to air-breathing terrestrials. During this land phase, they are known as efts.

Like you, wildlife requires food, water, shelter, and space to live - a place to call 'home', a.k.a. habitat. Your backyard woods may have all of these things and is likely already home to a host of wildlife species. But, not all woods are created equal; in some, wildlife merely survives, in others, it thrives. No matter how large or small your backyard woods, there are choices you can make and actions you can take to increase the number and variety of wildlife species.

First, learn the lay of your land. The more you know about your land, the better able you will be to enhance its value for the wildlife you desire. Draw a map of your property that displays its prominent features, such as

- rock outcroppings and caves
- wetlands, vernal pools, spring seeps, streams or ponds

- mixed forests (deciduous and evergreen)
- openings without trees
- trees, shrubs, groundcovers and flowers that produce nuts, berries, or other fruits or natural foods
- dead or living trees containing holes, or cavities
- standing dead trees and fallen logs
- hedgerows

By mapping important features, you can assess habitat elements that already exist. Then get to know the local wildlife and the habitats that they frequent. Once you have mapped and inventoried your land and decided which wildlife species you want to attract, you are ready to identify the steps you can take to provide them with the food, water, shelter, and space they need to survive.

Basic Survival Needs of All Wildlife

FOOD

To provide food for wildlife, promote the health and growth of good wildlife food-producing trees such as oaks, hickory, beech and black cherry. Nuts, such as acorns, hickory nuts, or beechnuts provide food for chipmunks, squirrels, turkeys, bears, and others. You can promote the growth of these valuable trees by culling (cutting) less desirable trees that compete with your food-producing trees for light. Cutting



Hickory nuts provide food for many wildlife species.

in winter and leaving the tops on the ground provides browse for animals such as deer, or rabbits. Culling also creates openings or clearings. Rabbits, voles, and mice are naturally drawn to openings where they can find grasses and forbs (herbaceous plants other than grasses) to eat. Keep in mind however, that deer and rabbits may be equally attracted to your favorite vegetable garden or prized ornamentals!

If soil and light conditions are suitable in clearings, you can encourage or plant native trees or shrubs that bear fruit, nuts, or flowers. Berries, from dogwood, raspberry, blackberry, elderberry, and other plants may attract birds and bears, while flowers provide nectar and pollen to butterflies, bees and hummingbirds. The New York State Department of Environmental Conservation tree nursery in Saratoga sells a variety of shrub and tree species that produce wildlife food. For more information on ordering tree seedlings from NYS Department of Environmental Conservation, call (518)587-1120 or visit their web site at <http://www.dec.stat.ny.us/website/dlf/privland/nursery/treeshrub.html>

Landowners who retain a few dead standing trees (away from trails, buildings and other high-traffic places where they might present a safety hazard) will be delighted to see woodpeckers, birds, and other animals feeding on the insects and fungi attracted to the decaying wood.



Leaving dead wood on the forest floor provides habitat for amphibians, reptiles, small mammals, and invertebrates

WATER

Water is a 'wildlife magnet'. Most living things require water for bathing, drinking, and/or breeding. This does not mean, however, that the absence of open water in your woods will deter wildlife. Animals meet their water needs

in various ways. Some get all they need from the foods they eat. Others drink dew or raindrops that cling to plants. Several make use of seeps and vernal (springtime) pools.

Some wildlife species actually create wetland habitats. Beavers are distinguished by their extraordinary ability to dam up small waterways, creating ponds that are choice habitat for other water-loving creatures as well.

In some circumstances, it may be feasible for you to create a backyard pond. It need be no larger than 3 or 4 feet in diameter. Some homeowners add small ponds to attract frogs and toads to their gardens. Frogs and toads eat a wide variety of insect pests and slugs. Assistance with planning your pond is available from local agencies including Cornell Cooperative Extension, your County Soil and Water Conservation District, and the New York State Department of Environmental Conservation.



Water sources, such as wetlands, streams, vernal pools, ponds, and spring seeps provide a critical element of wildlife habitat and can provide landowners with many wildlife viewing opportunities.

SHELTER

Shelter can provide protection from the elements, safety from predators, a secure place to raise young, or simply a place to rest. Shelter might be a hollow log, a brush pile or a hole in the ground. Even a single fallen leaf may offer shelter to some tiny creature!

Dead and dying trees (known as 'snags' and often referred to as habitat trees) – whether standing, leaning, or fallen – also play a vital role in the lives of wildlife. Fallen dead trees provide drumming sites for grouse, as well as a place for fungi to grow. Fungi are a food source for chipmunks, deer and squirrels. Decomposing wood also provides a moist, cool habitat for amphibians and reptiles.

Trees that have been weakened by disease or injury attract insects, which subsequently attract insect-eating creatures. Through decay and the drilling of woodpeckers and other excavators, hollows eventually appear in many dead and dying trees. A variety of bees, birds and mammals build hives, nests, and dens in these cavities. Dead and dying trees can be as valuable or more valuable to wildlife than healthy trees!

SPACE

You probably know the number of acres your property covers, but did you know that space available for attracting wildlife extends vertically as well? Trees, shrubs, and vines of varying heights provide a full range of 'suites' for animals that climb and fly. The good news is that you can encourage increased vertical structure in your woodland through management practices like thinning - which increases sunlight and in turn promotes understory growth and forest renewal.



Holes, or cavities, in trees provide refuge for many wildlife species.

Conclusion

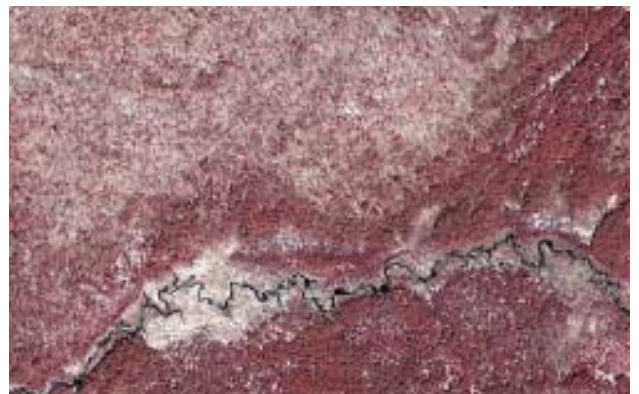
When properly managed, your property will offer a permanent home to some wildlife, a rearing or nesting site to others, and a welcome place to rest for those that are simply passing through. You may have to be patient, though - it could take awhile for your wildlife-friendly forest to become established or for the wildlife you desire to find the habitat you have provided. But it's worth the wait!

As neighbors and friends see the rewards of your habitat improvement, they may also choose to do something positive for wildlife. By joining forces, home and landowners can enhance the quality and increase the size of the habitat provided in their neighborhoods. Several approaches and programs are available to landowners working cooperatively to manage lands that reach beyond their own backyard woods.

Once you have assessed habitat and wildlife on your land, acquire an aerial photo and topographic map of your property. The Soil Conservation District office or the Farm Services Agency (FSA) office in your county or area often has aerial photos for you to view and order. Aerial photos and topographic maps are available on-line at <http://terraserver-usa.com/>. Get the "big picture" perspective of our neighborhood to determine which habitat components are plentiful or scarce on your land and adjacent ownerships. The home range size



Looking at your property as part of the "big picture" can help you determine what habitat elements are needed. On this large, unbroken areas of forest are rare.



On this map, forest openings are uncommon. If you lived in this area you might consider creating a couple of forest openings.

of different species varies dramatically so your land likely is just part of the home range of many species. Concentrate your management activities to provide habitat components that are scarce in your area; the "limiting factors".

Additional References:

Decker, Daniel J., and John W. Kelley. 1998. *Enhancement of Wildlife Habitat on Private Lands*. Cornell University Media Services. Ithaca, NY. 42 pp. Available electronically at <http://dspace.library.cornell.edu/handle/1813/72>

Hobson, Scott S., John S. Barclay, and Stephen H. Broderick. 1993. *Enhancing Wildlife Habitats: A Practical Guide for Forest Landowners*. Northeast Regional Agricultural Engineering Service. NRAES-64. 172 pp.

Web Pages of Interest

Arnot Conservation Education Program web site - www.arnotconservation.info

New York State Department of Environmental Conservation Bureau of Wildlife web site - <http://www.dec.state.ny.us/website/dfwmr/wildlife/>